



Blue Tops RF Modules > Low Noise Odd Order Multiplier

Features:

- Output Frequency to 1 GHz
- Multiplication Factor: x3, x5, x7 & x9
- Low Conversion Loss
- Intrinsic Phase Noise to -178 dBc/Hz
- Integral Filters and Amplifiers

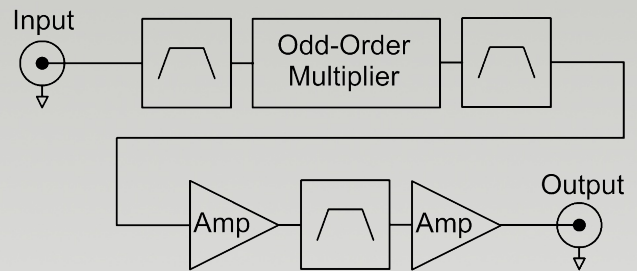
Applications:

- Synthesizer Building Block
- Communication Systems
- Radar Systems
- Electronic Warfare Systems



Description:

The LNOM is an odd-order multiplier utilizing a proprietary Schottky Diode Topology to achieve exceptionally low phase noise and excellent conversion efficiency. Multiplication factors of 3, 5, 7 and 9 with output frequencies to 1 GHz are available. Integral bandpass filters effectively control undesired sub-harmonics and harmonics. The LNOM provides input referred phase noise floors to -178 dBc/Hz and unusually low flicker noise. For example, a 10 MHz to 50 MHz multiplier exhibits an input referred phase noise of only -165 dBc/Hz at 100 Hz offset. Please consult our technical staff for assistance in configuring a multiplier to suit your input and output requirements.



Electrical Specifications				
Input Frequency Range	5 MHz to 300 MHz, fixed			
Multiplication Factors	x3	x5	x7	x9
	Max Input Frequency	320 MHz	200 MHz	100 MHz
Input Level	+12 dBm to +15 dBm, fixed (± 1 dB)			
Output Frequency	to 1 GHz			
Output Level	to +20 dBm			
Phase Noise Floor (Intrinsic, Input Referred)	to -178 dBc/Hz			
Conversion Loss	-3 dB to +5 dB			
Harmonics	≤ -25 dBc			
Sub-Harmonics	≤ -50 dBc			
Spurious (Excluding Supply Line Related Spurs)	≤ -80 dBc			
Supply Voltage	+15 VDC $\pm 2\%$			
Current Draw (Amplifier Dependent)	100 to 200 mA			
Operating Temperature	0 to +50°C			
Storage Temperature	-40 to +85°C			
Mechanical				
Dimensions	3" x 1.25" x 0.8"			
DC Supply	Feed Thru Capacitor Solder Pin			
Ground	Turret Terminal Solder Pin			
RF Input / Output	SMA female *			
NOTE: See amplifier selection chart for internal amplifier options or consult factory. * SMA female connectors are used unless otherwise specified. Other options include SMA male, right angle SMAs, BNC female and others. Contact factory for custom configurations.				

